Professor Jennifer N. Carpenter
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Course Description
This course describes important fixed income securities and markets and develops tools for valuing these securities and managing interest rate risk. The course covers traditional bonds and term structure concepts, as well as fixed income derivatives and financial engineering.

Tentative Schedule of Lectures
Sep 7    Coupon bonds and zeroes
Sep 12   Zero rates vs. Rate of return
Sep 14   Yield to maturity
Sep 19   Duration
Sep 21   Immunization
Sep 26   Convexity
Sep 28   Forward contracts
Oct 3    Forward rates
Oct 5    Repos
Oct 12   Floating rate notes
Oct 17   Swaps
Oct 19   Swap spreads, Forward rate agreements
Oct 24   No-arbitrage pricing
Oct 26   Midterm
Oct 31   Risk-neutral probabilities
Nov 2    Dynamic trading strategies
Nov 7    Financial engineering
Nov 9    Hedging, Options
Nov 14   Caps
Nov 16   Floors and collars
Nov 21   American options
Nov 23   Callable bonds
Nov 28   Swaptions
Nov 30   Mortgage market
Dec 5    Passthroughs
Dec 7    CMOs
Dec 12   Treasury bond futures
Dec 14   Eurodollar futures

Dec 19 2-3:50: Final Exam for Section 1, MW 2:00
Dec 21 4-5:50: Final Exam for Section 2, MW 3:30
Course Materials
Required
  Lecture notes and problem sets
Recommended

Course Requirements
Grades will be based on the following.
  Class Participation (5%)
  Problem Sets (5%)
  Midterm (40%)
  Final (50%)

Exams

You must take each of your exams as scheduled. Otherwise, with the following two exceptions, your grade for the exam will be zero.
1) In case of a legitimate, foreseeable conflict, in order to take the exam at a different time, you must make a request in writing or by email at least one week prior to the exam, and obtain my written or email permission prior to the exam.
2) In case of an emergency, you must provide formal, written verification, such as a letter from a doctor.

Weekly Problem Sets
Because the material is technical and new concepts build on old ones, it will be essential to do the problem sets in order to follow the lectures and succeed on the exams. To facilitate learning, I encourage students to work together on these problem sets. Groups of students working together should submit just one assignment. All students in the same group will get the same grade. I cannot accept late assignments.

TA Office Hours
My TAs, Jeff Wang and Tianyou Xing, will hold office hours in KMC 4-80 on Tuesdays at 5-6. I encourage students to make the most of this opportunity to get regular help and feedback, and to use this reserved room to meet for group work as well.

Warning
The study of fixed income securities is quantitative by nature and this course will be taught very rigorously. The course will require a consistent commitment of time, energy, and concentration, both in and outside class, throughout the semester.
Grading
At NYU Stern we seek to teach challenging courses that allow students to demonstrate
differential mastery of the subject matter. Assigning grades that reward excellence and reflect
differences in performance is important to ensuring the integrity of our curriculum.

In general, students in this course can expect a grading distribution similar to that used in our
core courses, where:

- 25-35% of students can expect to receive A’s for excellent work
- 50-70% of students can expect to receive B’s for good or very good work
- 5-15% of students can expect to receive C’s or less for adequate or below work

Note that while I will use the above as a guide, the actual distribution for this course and your
own grade will depend upon how well each of you actually performs in this course.

Re-Grading
In line with Grading Guidelines for the NYU Stern Undergraduate College, the process of
assigning of grades is intended be one of unbiased evaluation. This means that students are
encouraged to respect the integrity and authority of the professor’s grading system and
discouraged from pursuing arbitrary challenges to it.

If a student feels that an inadvertent error has been made in the grading of an individual
assignment or in assessing an overall course grade, a request to have that grade re-evaluated
may be submitted. Students should submit such requests in writing to the professor within 7
days of receiving the grade, including a brief written statement of why he or she believes that
an error in grading has been made.

Academic Integrity
Integrity is critical to the learning process and to all that we do here at NYU Stern. All
students are expected to abide by the NYU Stern Student Code of Conduct. A student’s
responsibilities include, but are not limited to:
- A duty to acknowledge the work and efforts of others when submitting work as one’s
  own. Ideas, data, direct quotations, paraphrasing, creative expression, or any other
  incorporation of the work of others must be clearly referenced.
- A duty to exercise the utmost integrity when preparing for and completing examinations,
  including an obligation to report any observed violations.

Please see www.stern.nyu.edu/uc/codeofconduct for more information.

Students with Disabilities
Students whose class performance may be affected due to a disability should notify the
professor early in the semester so that arrangements can be made, in consultation with the
Henry and Lucy Moses Center for Students with Disabilities, to accommodate their needs.

Please see www.nyu.edu/csd for more information.